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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,707	06/25/2003	Bruno J. Evans	2063.003100	3456

7590

05/27/2004

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EXAMINER

ANDREA, BRIAN K

ART UNIT

PAPER NUMBER

3662

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/603,707

Applicant(s)

EVANS ET AL.

Examiner

Brian K Andrea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 18-23 is/are allowed.
- 6) ☒ Claim(s) 10,14-17,24-28 and 30-43 is/are rejected.
- 7) ☒ Claim(s) 11-13 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/14/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 10, 14-17, 24-28 and 30-43 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,323,941 to Evans et al. (hereinafter, "Evans") which was cited on the Information Disclosure Statement.

With regard to claim 10, Evans teaches a multi-spectral detector for use in passive/active system, comprising: means 28a for distributing a plurality of spectral components of received LADAR and IR radiation received from a scene; means 228 for detecting the distributed LADAR detection; means 222a for detecting the spectral components of the IR radiation; and means 28, 30, 40 for generating a plurality of electrical signals representative of predetermined characteristics of the detected LADAR radiation and the detected spectral components.

With regard to claim 14, Evans teaches that the distributing means is integrated with the detecting means (see column 3, lines 54-59).

With regard to claim 15, Evans teaches that the detecting means comprises QWIPS or EQWIPS (see column 4, line 28).

With regard to claim 16, Evans teaches that the detecting means comprises a plurality of detectors having varied widths and which are separated by varied pitches (see figure 2).

With regard to claim 17, Evans teaches that the detecting means is integrated with the generating means (see figure 1).

With regard to claims 24, 31, 36 and 40, Evans teaches a method for use in identifying an object in a field of view, comprising: passively detecting radiation from a scene, the detection employing a detector array and actively detecting LADAR radiation through the detector array in parallel with passively detecting the scene radiation (see column 3, lines 26-32).

With regard to claims 25, 32, 37 and 41, Evans teaches that passively detecting scene radiation includes passively detecting infrared radiation (see column 4, line 23).

With regard to claims 26, 27, 33, 38 and 42, Evans teaches that passively detecting infrared radiation includes passively detecting hyperspectral infrared radiation (this is inherent because Evans teaches the detection of both LADAR radiation and multiple bands of IR radiation).

With regard to claims 28, 34, 39 and 43, Evans teaches that the radiation from the scene and the LADAR are received through the same optical train (see figure 1).

With regard to claims 30 and 35, Evans teaches generating a plurality of electrical signals representative of predetermined characteristics of the detected LADAR radiation and the detected spectral components (see column 3, lines 16-23).

***Allowable Subject Matter***

3. Claims 1-9 and 18-23 are allowed.
4. Claims 11-13 and 29 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is an examiner's statement of reasons for allowance:

Claim 1 requires an optically dispersive element capable of separating received LADAR and IR radiation into a plurality of spectral components and distributing the separated spectral components. Evans does not teach the separation and distribution of combined radiation (only the separation and detection). Additionally, U.S. Patent No. 5,528,354 to Uwira (hereinafter, "Uwira") teaches the detection of combined LADAR and IR radiation and teaches the separation of the spectral components (using a wavelength selective beamsplitter – see figure 1). However, Uwira does not teach the distribution of the components in any way. Therefore, the indicated claims are allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited prior art shows the current state of the art of combination LADAR and IR systems.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Andrea whose telephone number is (703) 605-4245. The examiner can normally be reached on M-F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (703) 306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*BKA*

BKA

May 18, 2004

*Brian K. Andrea*

EXAMINER  
PAID BY

A.U. 3662